



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 28, 2013

WELL WORK PERMIT

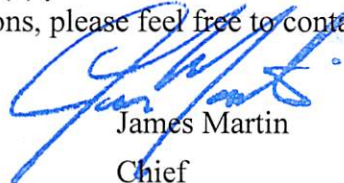
Secondary Recovery Well

This permit, API Well Number: 47-10302804, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: L. S.HOYT 293
Farm Name: DALLISON LUMBER INC.
API Well Number: 47-10302804
Permit Type: Secondary Recovery Well
Date Issued: 08/28/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

10302809

WW-3B
10/07



1) Date June 25, 2013
2) Operator's Well No. L. S. Hoyt 293
3) API Well No. 47 - 103 - 2804
State County Permit
4) UIC Permit No. UIC2R10304AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

- 5) WELL TYPE: Liquid Injection X Gas Injection (not storage) _____ Waste Disposal _____
- 6) LOCATION: Elevation 979' Watershed Betsy Run
District Grant 04 County Wetzel 103 Quadrangle Pine Grove 7.5' 548
- 7) WELL OPERATOR: HG Energy, LLC 494497948
5260 Dupont Road
Parkersburg, WV 26101
- 8) DESIGNATED AGENT: Mike Kirsch
5260 Dupont Road
Parkersburg, WV 26101
- 9) OIL & GAS INSPECTOR TO BE NOTIFIED:
Name Derek Haught
Address PO Box 85
Smithville, WV 26178
- 10) DRILLING CONTRACTOR:
Name To Be Determined Upon Permit Approval
Address _____
- 11) PROPOSED WELL WORK: Drill _____ Drill Deeper _____ Redrill _____ Stimulate _____
Plug Off Old Formation _____ Perforate New Formation _____ Convert X
Other Physical Change in Well (specify) _____
- 12) Geological target formation Gordon Depth 2,860 Ft. (Top) to 2,880 Ft. (Bottom)
- 13) Estimated depth of completed well (or actual depth of existing well) 3020' Ft.
- 14) Approximate water strata depths: Fresh 50 Ft. Salt 1,150 Ft.
- 15) Approximate coal seam depths: 700 Ft.
- 16) Is coal being mined in the area? Yes X No
- 17) Virgin reservoir pressure in target formation: 60 psig. Source Estimated
- 18) Estimated reservoir fracture pressure: 1200 psig.
- 19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 bbl/hr Bottom Hole Pressure 2400 psi
- 20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES and other chemicals as needed to maintain water quality and improve oil recovery. Fresh water, produced water, bactericides
- 21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters
- 22) SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL _____
- 23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	7"	L.S.	17#	X		966'	966'	Use Existing Casing	Tension
Coal									Sizes
Intermediate									2.375" X 4.5"
Production	4 1/2"	J-55	10.5#	X		2976'	2976'	Use Existing Casing	Depths Set
Tubing	2 3/8"	J-55	4.6#	X		2760'	2760'		2650'
Liners									Perforations
									Top Bottom

- 24) APPLICANTS OPERATING RIGHTS were acquired from LS Hoyt et al.
by Deed _____ Lease X Other Contract _____ Dated January 06, 1902 of record in the
Wetzel County Clerk's Office in Lease Book 76 at Page 800 2013

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

COPY

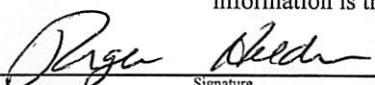
Farm name: DALLISON LUMBER INC. Operator Well No.: L.S. HOYT 293
LOCATION: Elevation: 979' Quadrangle: PINE GROVE 7.5'
District: GRANT County: WETZEL
Latitude: 9,400 Feet south of 39 Deg 37 Min 30 Sec.
Longitude: 6,525 Feet west of 80 Deg 37 Min 30 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek Haught				
Date Permit Issued:	07/10/2012				
Date Well Work Commenced:	07/30/2012				
Date Well Work Completed:	08/10/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable Rigs		7"	966'	966'	250 sks
Total vertical Depth (ft):	3020'				
Total Measured Depth (ft):	3020'				
Fresh Water Depth (ft):	50'	4 1/2"	2976.35'	2976.35'	150 sks
Salt Water Depth (ft):	none				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	700'-710'				
Void(s) encountered (Y/N) depth(s):	NONE				

OPEN FLOW DATA * Waterflood Producer

Producing formation	Gordon	Pay zone depth (ft)	2865'-2875'
Gas: Initial open flow	* MCF/d	Oil: Initial open flow	* Bbl/d
Final open flow	* MCF/d	Final open flow	* Bbl/d
Time of open flow between initial and final tests	* Hours		
Static rock pressure	* psig (surface pressure)	after	* Hours
Second producing formation		Pay zone depth (ft)	
Gas: Initial open flow	MCF/d	Oil: Initial open flow	Bbl/d
Final open flow	MCF/d	Final open flow	Bbl/d
Time of open flow between initial and final tests	Hours		
Static rock pressure	psig (surface pressure)	after	Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/2/12
Date

Office of Oil and Gas
WV Dept. of Environmental Protection

WW-3A
10/07



1) Date: June 25, 2013
2) Operator's Well No. L. S. Hoyt 293
3) API Well No. 47 103 - 2804
State County Permit
4) UIC Permit No. UIC2R10304AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) Surface Owner(s) To Be Served
(a) Name Dallison Lumber, Inc. ✓
Address HC 79, Box 50
Jacksonburg, WV 26377
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Derek Haught
Address PO Box 85
Smithville, WV 26178
Telephone 206-7613

7 (a) Coal Operator
Name NA
Address _____
7 (b) Coal Owner(s) With Declaration Of Record
Name NA
Address _____
Name NA
Address _____
7(c) Coal Lessee With Declaration Of Record
CONSOL ✓
6126 Energy Road
Moundsville, WV 26041

TO THE PERSON(S) NAMED ABOVE: You should have received this form and the following documents:

- (1) The Application for a Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is NA

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON FORM WW-3(A) DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of the mailing or delivery to the Chief.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

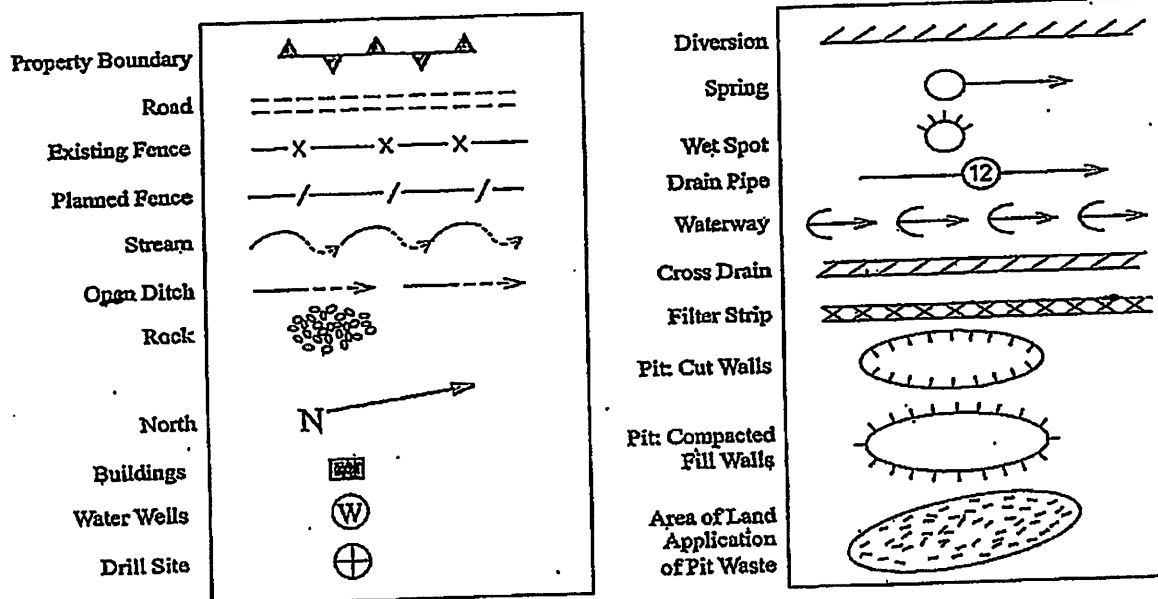
Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101
By: Diane C. White
Its: Accountant
Signature Diane C. White

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov or the Office of Oil and Gas at depoilgas@wv.gov.

Office of Oil and Gas
Dept. of Environmental Protection

WWS-Back

Legend

Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 0.2 Ac. Prevegetation pH _____

Area II
Approx. 0.1 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5
Fertilizer (10-20-20 or Equivalent) 500 Lbs/Acre (500 lbs. Minimum)
Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

Attach:

Drawing(s) of road, location, pit and proposed area for land application
Photocopied section of involved 7.5' topographic sheet.

Plan approved by: _____

Comments: _____

Title: Oil + Gas ImpactsDate: 6-27-12

Field Reviewed?

☒ Yes☐ No

Received

JUL 5 2013

Reclamation Plan For:

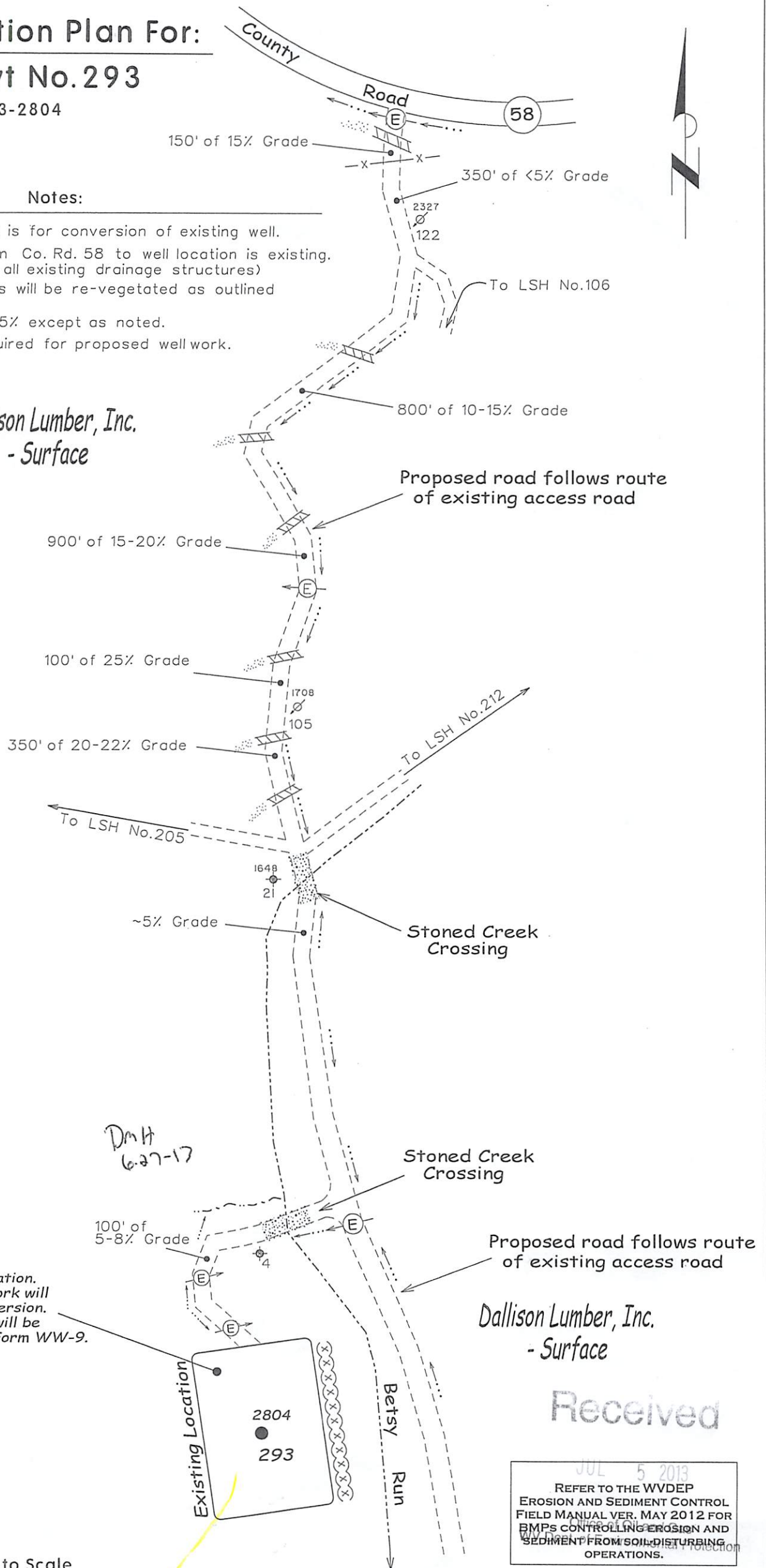
L.S. Hoyt No.293

47-103-2804

Notes:

- Requested permit is for conversion of existing well.
- Access road from Co. Rd. 58 to well location is existing. (Maintain road & all existing drainage structures)
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- All road grades <5% except as noted.
- No pit will be required for proposed well work.

Dallison Lumber, Inc.
- Surface

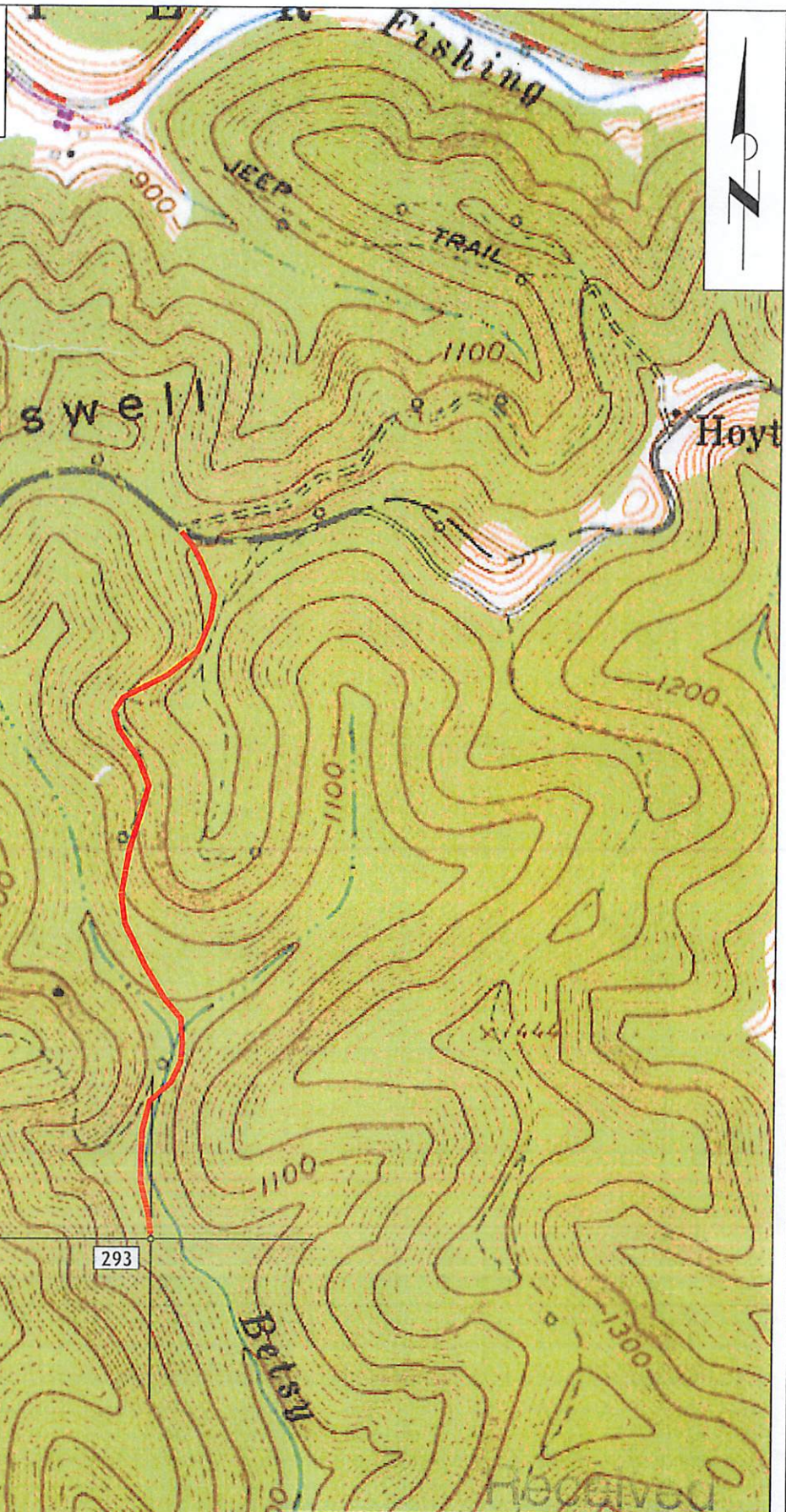


Note: Drawing not to Scale

Received

JUL 5 2013
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL DISTURBING
OPERATIONS.

SUBJECT WELL
L.S. Hoyt No.293
47-103-2804



DmH
6-27-17 Section of
JUL 5 2013
Pine Grove 7.5' Quadrangle
Office of Oil and Gas
SCALE 1" = 1000'
W. Dept. of Environmental Protection

Longitude - 80° 38' 53.3"

6,525'

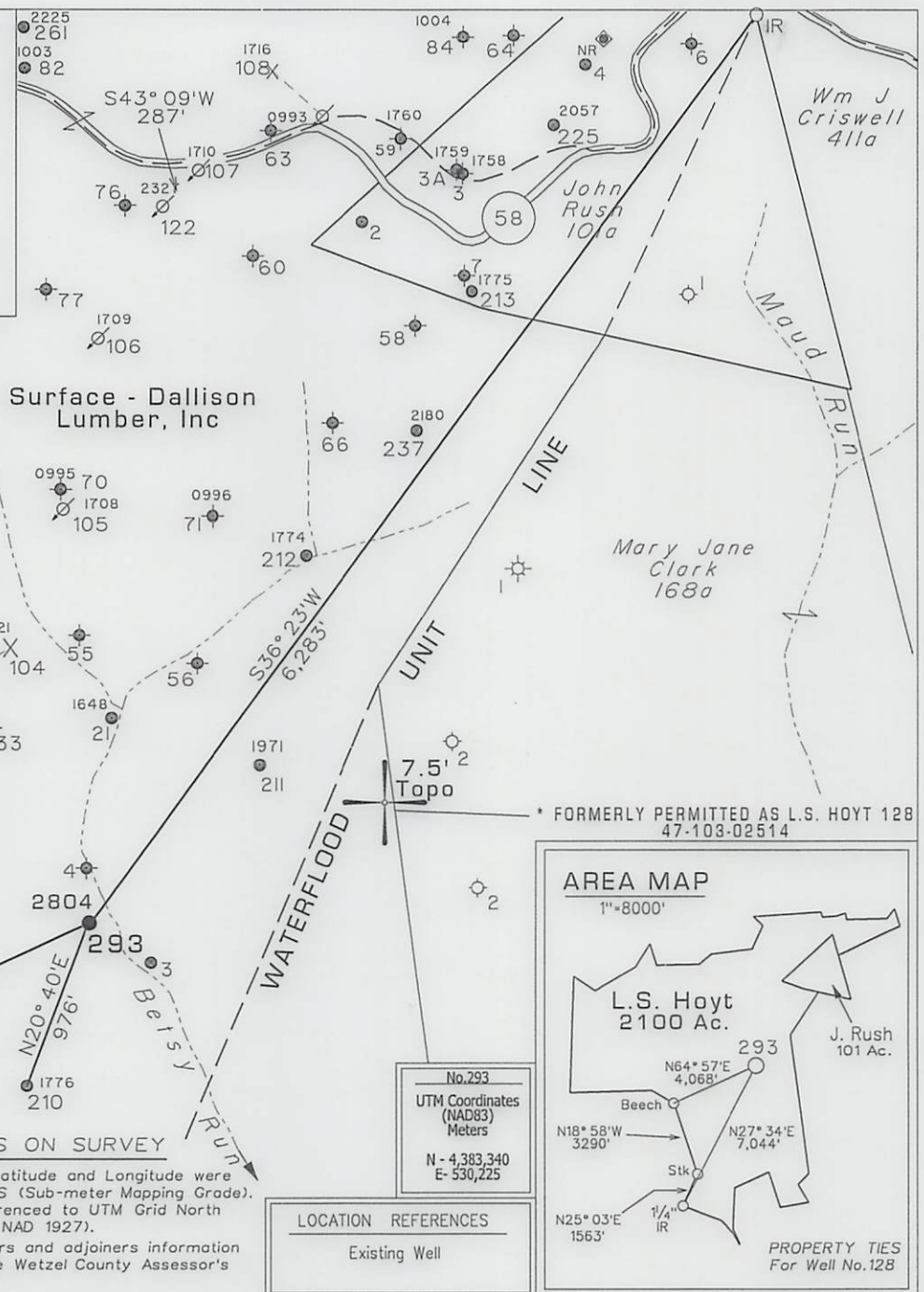
LATITUDE 39° 37' 30"

LONGITUDE 80° 37' 30"

Latitude - 39° 35' 57.1"

PLAT NOTES

- The drawing shown hereon is from the original drilling permit plat dated 3/8/2012.
- This plat has been updated to show current surface ownership and as-drilled Latitude & Longitude.
- Latitude & Longitude shown was measured by DGPS - Sub-Meter Mapping Grade (NAD 1927)



NOTES ON SURVEY

- Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).
- Surface owners and adjoiners information obtained from the Wetzel County Assessor's tax records.

✚ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. ◆ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2003 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.

FILE NO. 1046-31

MAP NO. N S E W

SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY Sub-Meter

PROVEN SOURCE OF ELEVATION DGPS Survey

(Sub-Meter Mapping Grade)

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) Timothy P. Roush PS 793



WEST VIRGINIA

Division of Environmental Protection

Office of Oil and Gas

601 57th Street

Charleston, West Virginia 25304



DATE March 8, 2012

FARM L.S. Hoyt No. 293

API WELL NO. 47-103-02804S

WELL TYPE: OIL GAS LIQUID INJECTION ☒ WASTE DISPOSAL

(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW CBM

LOCATION: ELEVATION 979' WATERSHED Betsy Run

DISTRICT Grant COUNTY Wetzel

QUADRANGLE Pine Grove 7.5'

SURFACE OWNER Dallison Lumber Inc. ACREAGE 2099.3 Ac.

OIL & GAS ROYALTY OWNER The Hoyt Foundation LEASE ACREAGE 2100 Ac.

LEASE NO. 99324-00

PROPOSED WORK: DRILL ☐ CONVERT ☒ DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Convert to Liquid Injection

PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION Gordon ESTIMATED DEPTH 3,020'

WELL OPERATOR HG Energy, LLC. DESIGNATED AGENT Mike Kirsch

ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519

Vienna, W.Va. 26105 Vienna, W.Va. 26105